

AMENDMENTS

Amendments to the Claims

1-30. (Canceled)

31. (Currently amended) A composition comprising an active Clostridial neurotoxin joined to a drug or other bioactive molecule;

wherein the active neurotoxin has binding specificity for a target nerve cell, is internalizable by the target nerve cell and has enzymatic activity for a target substrate selected from the group consisting of SNAP-25, VAMP and Cellubrevin.

32. (Currently amended) The composition of claim 31 wherein ~~said~~ the active Clostridial neurotoxin is an active ~~Clostridial~~ botulinum neurotoxin

33. (Cancelled)

34. (Previously presented) The composition of claim 31 wherein said drug is an intracellular acting drug.

35. (Currently amended) The composition of ~~claim 31~~ claim 32 wherein said Clostridial neurotoxin is selected from the group consisting of ~~tetanus toxin~~, a botulinum toxin A, a botulinum toxin B, a botulinum toxin C1, a botulinum toxin D, a botulinum toxin E, a botulinum toxin F, and a botulinum toxin G.

36. (Previously presented) The composition of claim 31 wherein said drug is selected from the group consisting of: a protein synthesis toxin, an inhibitor of neurotransmitter release, a neuronal calcium channel blocker, a ribozyme and an oligonucleotide.

37. (New) The composition of claim 31 wherein the active Clostridial neurotoxin is an active tetanus neurotoxin.

38. (New) A pharmaceutical composition for treatment of a neuromuscular dysfunction in a mammal, comprising an active Clostridial neurotoxin joined to a drug or other bioactive molecule; and a pharmaceutically acceptable excipient;

wherein the active neurotoxin has binding specificity for a target nerve cell, is internalizable by the target nerve cell and has enzymatic activity for a target substrate selected from the group consisting of SNAP-25, VAMP and Cellubrevin.

39. (New) The pharmaceutical composition of claim 38 wherein the active Clostridial neurotoxin is an active botulinum neurotoxin.

40. (New) The pharmaceutical composition of claim 39 wherein the active botulinum neurotoxin is selected from the group consisting of a botulinum toxin A, a botulinum toxin B, a botulinum toxin C1, a botulinum toxin D, a botulinum toxin E, a botulinum toxin F, and a botulinum toxin G.

41. (New) The composition of claim 38 wherein the active Clostridial neurotoxin is an active tetanus neurotoxin.

42. (New) The pharmaceutical composition of claim 38 wherein the neuromuscular dysfunction is characterized by uncontrollable muscle spasms.

43. (New) The composition of either of claims 31 or 38 wherein the drug or other bioactive molecule is an inhibitor of neurotransmitter release.

44. (New) The composition of either of claims 31 or 38 wherein the drug or other bioactive molecule is an active ingredient for treatment of botulism or tetanus.

45. (New) The composition of either of claims 31 or 38 wherein the drug or other bioactive molecule is selected from the group consisting of a GABA agonist, a neuronal calcium channel agonist, an adenosine agonist, a glutamate antagonist, a protein synthesis toxin, a zinc-dependent protease inhibitor, a neuronal growth factor, an antiviral agent, a

nicotinic antagonist, a neuronal calcium channel blocker, an acetylcholine esterase inhibitor, a potassium channel activator, a vasamicol or a vasamicol inhibitor, a ribozyme, and a transcribable gene.